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**Н.П.Гальчун**

**ENGLISH FOR PHARMACISTS**

**АНГЛІЙСЬКА МОВА ДЛЯ ФАРМАЦЕВТІВ**

*Навчальний посібник*

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### **Рецензенти:**

**Гусак Л.Є.** – доктор педагогічних наук, професор кафедри іноземних мов гуманітарних спеціальностей Волинського національного університету імені Лесі Українки;

**Смалько Л.Є.** – кандидат педагогічних наук, доцент кафедри іноземних мов гуманітарних спеціальностей Волинського національного університету імені Лесі Українки.

### **Гальчун Н.П**

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**MODULE I**  
**INTRODUCTION TO THE**  
**SPECIALITY**

## *Unit 1*

# **PHARMACEUTICAL EDUCATION IN UKRAINE**

## *Vocabulary*

to enter ['entə] – вступати  
course [kɔ:s] – курс  
to last [lɑ:st] – тривати  
property ['prɒpəti] – властивість  
internship ['intɜ:nʃɪp] – інтернатура  
establishment[ɪ'stæblɪʃm(ə)nt] – заклад, установа  
master ['mɑ:stə] - магістр  
abroad [abroad] – за кордоном  
evidence ['evid(ə)ns] – доказ  
standard ['stændəd] – рівень  
postgraduate [pəʊs(t)'grædʒʊət] – аспірант  
applicant [æplɪk(ə)nt] – абітурієнт  
compulsory [kəm'pʌls(ə)rɪ] – обов'язковий

### *Pharmaceutical Education in Ukraine*

In Ukraine there is a wide range of higher medical educational institutions to train pharmacists. To enter a pharmaceutical faculty students have to represent certificates on Ukrainian, chemistry and biology or maths.

The course of study lasts five years. During the first two years they study such subjects as botany, anatomy, physiology, general chemistry, physics, etc.

During the next three years pharmacy students master special sciences, like pharmacology, pharmacognosy, analytical chemistry, pharmaceutical chemistry, drugs technology, economy and organization of pharmacy, pharmaceutical management and marketing, etc.

Future pharmacists also have classes in special laboratories, where they study physical and chemical properties of medicines. Besides they have practical training at chemist's shops to learn to work as pharmacists.

After having graduated the course of study, pharmacy students have a period of internship. They specialize in such pharmaceutical specialties: Pharmacy, Clinical Pharmacy, Technology of pharmaceutical Preparations, technology of Perfumery and Cosmetic preparations

Nowadays many foreign students master medicine and pharmacy at the Ukrainian higher medical institutions. That is a half of foreign students in our country. It shows high standards of medical and pharmaceutical education in Ukraine.

There is also postgraduate study as a form of training scientific and teaching specialists at higher medical institutions of Ukraine. Postgraduate education is not compulsory. The students do a research on the theme under the investigation and write thesis. Successful defence of research paper they are granted a Phd (Philosophy Doctor) degree and get diploma.

***Exercise 1. Guess the meaning of the following words:***

Institution, academy, examination, subject, physiology, chemistry, physics, laboratory, qualified, specialize, perfumery, cosmetic, assistant, faculty, specialist, problem, train, professional, pharmacognosy, pharmacokinetics, organize, doctor, professor, qualified, biology, botany, pharmacology, organic, toxicological, analytical, special, technology, pharmacy, management, marketing, department, period, pathology, mechanism, molecular, radiation, clinic.

***Exercise 2. Answer the questions:***

1. What should an applicant do to enter pharmaceutical institution of higher medical education?
2. How long does the course of study last?
3. What do the students study?
4. How do they have practical training?
5. What do all pharmaceutical students have after graduation?
6. How many foreign students master pharmacy in Ukraine?
7. Is there postgraduate study at higher medical institutions of Ukraine?
8. Is it compulsory?
9. What do postgraduate students do?
10. What degree are they granted?

**Exercise 3. Match the words with the definitions:**

1. abroad	a. to continue for a particular length of time
2. property	b. to start working in a particular field or organization or to start studying at a school or university
3. standard	c. the level that is considered acceptable, or the level that someone or something has achieved
4. to last	d. an organization or institution, especially a business, shop, etc.
5. to enter	e. someone who is studying at a university to get a Master's Degree or a PhD (Doctor of Philosophy) Degree
6. evidence	f. someone who has formally asked, usually in writing, for a job, university place, etc.
7. course	g. a job that someone, who has almost finished training as a doctor, does in a hospital
8. establishment	h. a period of study in a particular subject, especially at university
9. postgraduate	i. a quality or power that a substance, plant, etc. has
10. internship	j. facts or signs that show clearly that something exists or is true
11. applicant	k. in or to a foreign country



***Exercise 4. Translate the following sentences into Ukrainian.***

1. The committee is assessing the standard of care in local hospitals.
2. She often goes abroad on business.
3. People know many herbs with healing properties.
4. Each lesson lasts for 45 minutes.
5. To enter a university applicants take entrance exams.
6. He was one of 30 applicants for the manager's job.
7. The course of study at the pharmaceutical faculty lasts for 5 years.
8. The course of compulsory education in Ukraine makes 9 years.
9. People keep medicines out of the reach of children.
10. He takes this medicine twice a day.
11. Postgraduate students do research for their theses.
12. Teachers help students in their researches.
13. There is an extramural department at our university.
14. Languages are an essential part of a school curriculum.

## *Unit 2*

# **PHARMACEUTICAL EDUCATION IN GREAT BRITAIN**

## *Vocabulary*

advanced [æd'vɑ:nst] – передові  
cognate sciences ['kɒɡneɪt] – споріднені науки  
curriculum [kə'ɾɪkjʊləm] – курс навчання  
hospital ward - лікарняна палата  
interaction [ɪntər'ækʃ(ə)n] - взаємодія  
to license ['laɪs(ə)ns] - давати право  
Master of Science - Магістр наук  
minor ['maɪnə] – другорядний, незначний  
technique [tek'ni:k] – метод  
the apprenticeship [] – навчання  
pharmaceutical jurisprudence [ˌdʒʊəɾɪs'pru:d(ə)ns] -  
фармацевтична юриспруденція  
to appoint [ə'pɔɪnt] – призначати  
to conduct [kən'dʌkt] – проводити  
to embrace [ɪm'breɪs] - включати, охоплювати  
encompass охоплювати  
to engage in [ɪn'geɪdʒ] – займатися  
to expect [ɪk'spekt] – чекати  
to undergo – зазнавати

## *Pharmaceutical Education in Great Britain*

The history of pharmaceutical education is closely connected with medical education. The training of physicians underwent changes from apprenticeship system to formal educational courses. The same way passed the pharmacists training. The first pharmaceutical colleges in Great Britain appeared at the beginning of the 19<sup>th</sup> century.

The course of instruction to get a degree in pharmacy lasted from four to five years in 1960s. The first and sometimes the second year of training embraced general education and were often provided by a school of arts and sciences. In addition, many institutions offered graduate courses in pharmacy and cognate sciences leading to the Degree of Philosophy Doctor in Pharmacy, Pharmacology or related disciplines. These advanced courses are for those, who are preparing for careers in research, manufacturing, or teaching in pharmacy.

Several schools of pharmacy have now adopted a six-year professional course leading to the Degree of Pharmacy Doctor. This professional training embraces many common subjects to the medical curriculum and involves training in hospital wards. In such a way professionally trained pharmacist is expected to advise physician in the techniques of administering medication and possible interaction of drugs in the patient, along with expected side effects.

The fundamental five-year curriculum in British colleges of pharmacy includes physics, chemistry, biology, bacteriology, physiology, pharmacology, and

a lot of other specialized courses such as dispensing pharmacy. As pharmacist is also engaged in business, special training in merchandizing, accounting, computer techniques, and pharmaceutical jurisprudence is provided. All other countries requiring licences to practice offer the same basic curriculum though with some variations.

Before a person is permitted to pharmaceutical practice in Britain as well as in other countries, where license is required, an applicant must be qualified by graduation from a recognized college of pharmacy, meet specific requirement for experience, and pass an examination conducted by a Board of Pharmacy appointed by a Government. The passing of this Board examination guarantees the legal right to practice pharmacy. The holder is then designated a registered or licensed pharmacist.

***Exercise 1. Answer the questions:***

1. What changes did the training of the pharmacist undergo?
2. When were the first pharmaceutical colleges founded in Great Britain?
3. When was the course of instruction extended?
4. Which years of training are provided by a school of arts and sciences?
5. What additional graduate courses do many institutions offer?
6. What professional training includes medical subjects and training in hospital wards?

7. What is the professionally trained pharmacist expected to do?
8. What sciences does the basic five-year curriculum embrace?
9. What curriculum do other countries offer?
10. What is required to be permitted to practice pharmacy in Great Britain?

***Exercise 2. Fill in the words from the list, then make sentences using the completed phrases.***

*apprenticeship, advanced, cognate, hospital, related, adequate, side, pharmaceutical, legal, minor.*

1. \_\_\_\_\_ system
2. \_\_\_\_\_ science
3. \_\_\_\_\_ disciplines
4. \_\_\_\_\_ courses
5. \_\_\_\_\_ wards
6. \_\_\_\_\_ training
7. \_\_\_\_\_ jurisprudence
8. \_\_\_\_\_ effects
9. \_\_\_\_\_ variations
10. \_\_\_\_\_ right

***Exercise 3. Find equivalents:***

1. The history of pharmaceutical education
2. The first pharmaceutical colleges in Great Britain were
3. The course of instruction leading to a degree in pharmacy
4. These advanced courses are intended especially for those,

5. Several schools of pharmacy have now adopted
6. The basic five-year curriculum in British colleges of pharmacy embraces physics,
7. As the pharmacist is engaged in business as well, special training
8. All other countries requiring licenses to practice
9. The passing of this board
10. The holder is then designated
- I. is provided in merchandising, accounting, computer techniques, and pharmaceutical jurisprudence.*
- II. was extended from four to five years in 1960.*
- III. a six-year professional course leading to the degree of Doctor of Pharmacy.*
- IV. a registered or licensed pharmacist.*
- V. has closely followed that of medical education.*
- VI. who are preparing for careers in research, manufacturing, or teaching in the field of pharmacy.*
- VII. examination carries with it the legal right to practice pharmacy.*
- VIII. chemistry, biology, bacteriology, physiology, pharmacology, and many other specialized courses such as dispensing pharmacy.*
- IX. founded at the beginning of the nineteenth century.*
- X. offer the same basic curriculum with minor variations.*

**Exercise 4. Correct the statements below!**

1. The history of pharmaceutical education is not connected with the history of medical education.

2. A four-year instruction course was adopted in 1960.
3. All pharmaceutical institutions offer courses leading to the degrees of Master of Science and Doctor of Philosophy.
4. The compulsory professional course in pharmacy is 6 years.
5. Different countries offer different curricula in pharmaceutical education.
6. Before one is permitted to practice pharmacy in Great Britain he must pass an examination conducted by a board of pharmacy appointed by his college.

***Exercise 5. Make up a plan of the text!***

### *Unit 3*

## **PHARMACEUTICAL EDUCATION IN THE UNITED STATES OF AMERICA**

### *Vocabulary*

accelerated program [ək'seləreɪtɪd] – прискорена програма.  
admission [əd'mɪʃ(ə)n] – прийом, допуск  
authorization [ɔ:'θəraɪ'zeɪʃ(ə)n] – дозвіл, повноваження, санкція  
distribution [dɪstrɪ'bju:ʃ(ə)n] – розподіл  
interview ['ɪntəvjʊ:] – співбесіда  
licensure ['laɪs(ə)nsjʊə] – дозвіл  
on-campus activity [] – університетська діяльність  
optional – необов'язковий, вибірковий  
performance [pə'fɔ:m(ə)ns] – виконання  
academic performance – академічна успішність  
prerequisite [pri:'rekwɪzɪt] – необхідна, попередня умова  
prospective – майбутній  
reference – рекомендація  
(to) register ['redʒɪstə] – список, вносити у список  
setting – встановлення, регулювання  
statutory body ['stætʃʊt(ə)rɪ] – статутний орган, затверджений законом орган  
timely – своєчасно, вчасно  
to confer a degree – присвоювати ступінь  
to manage ['mænɪdʒ] – управляти, вміти поводитися



to shape – формувати

to supersede [ˌsuːpə'siːd] – замінити

undergraduate – студент останнього курсу,  
новачок, початківець

### **Main Abbreviations:**

1. Pharmacy College Admission Test (PCAT) – вступне випробування до фармацевтичного коледжу
2. Doctor of Pharmacy (Pharm.D.) – доктор фармації
3. American Association of Colleges of pharmacy (AACCP) – Американська асоціація коледжів фармації
4. Bachelor of Sciences in Pharmacy (B. S. Pharm.) – бакалавр фармації
5. Master of Pharmacy – магістр фармації
6. Overseas Pharmacists Assessment Programme (OSPAP) – програма оцінювання закордонних фармацевтів
7. Post-Graduate Taught (FGT) – післядипломне навчання

### ***Pharmaceutical Education in the United States of America***

A person seeking to become a pharmacist must complete a pre-pharmacy undergraduate program. Such a program consists of a minimum of 60-70 semester credit hours of undergraduate coursework in basic and advanced sciences, such as chemistry, biology, and physics, as well as courses in humanities and social sciences.

Approximately two-thirds of all colleges require applicants to take the Pharmacy College Admissions Test (PCAT). Additional requirements for entry may be essays, references, an interview or participation in other on-campus activities.

A pharmacy student will typically complete a four-year pharmacy program, although some schools offer accelerated three-year programs. The curriculum typically begins with courses in physiology and pathology, medical chemistry and toxicology. Pharmacy college courses are designed to teach students about all aspects of drug therapy. Schools also teach students how to communicate with patients and other health care providers about drug information and patient care. Besides, students learn professional ethics, how to develop and manage medication distribution systems, and concepts of public health.

On completion of all professional curriculum and practice experiences, the students will graduate and be awarded the Doctor of pharmacy (Pharm.D.) degree. Students in Pharm.D. Programs spend about one-fourth of their time learning in a variety of pharmacy practice settings under the supervision of licensed pharmacists after the passing of State Board of Pharmacy's Licensure Examination.

A license to practice pharmacy is required in all states, District of Columbia, and all U.S. territories. In 2004, 89 colleges of pharmacy were credited to confer

degrees by the Accreditation Council for Pharmacy Education.

Traditionally in the USA, the Bachelor of Pharmacy was the first-professional degree for pharmacy practice. In 1990 the American Association of Colleges of Pharmacy (AACP) mandated that a Doctor of Pharmacy would be the new first-professional degree beginning with the class of 1998. In 2000 all pharmacy schools in the USA have discontinued the B.S.Pharm. (Bachelor of Sciences in Pharmacy) degree program, and have made the Pharm.D. (Doctor of Pharmacy) degree the only available option. The new degree intensified and lengthened classroom instructions in pharmacological management of disease, added requirements for coursework that would shape a more rounded pharmacist and additional advanced practice experience.

A new pharmacy graduate may choose to complete an optional post-graduate residency (one to three years) rather than entering directly into pharmacy practice. A pharmacy residence consists of one or two years of general residency and one to two years of specialized residency.

With the aim of practicing as pharmacist, a person must be registered with the relevant statutory body, which governs the registration and practice of pharmacy within the territory of its jurisdiction.

There is a demand to a pharmacy graduate to have completed a certain number of hours of

experience in a pharmacy, under the supervision of a registered pharmacist. The statutory body will administer a written and oral examination to the prospective pharmacist prior to registration.

***Exercise 1. Answer the questions:***

1. What do individuals seeking to become pharmacists must complete?
2. What may additional requirements for entry include?
3. What does the curriculum typically begin with?
4. Do students also learn professional ethics?
5. Is license to practice pharmacy required in all States?
6. When were 89 colleges of pharmacy accredited to confer degrees by the Accreditation Council for Pharmacy Education?
7. What may a new pharmacy graduate choose to complete?
8. What must the person be registered with?

***Exercise 2. Find and correct the wrong statement!***

1. Approximately one-third of all colleges require applicants to take the Pharmacy College Admissions Test (PCAT).
2. Additional requirements for entry may include essays, references, an interview or participation in other on-campus activities.

3. Courses offered at colleges of pharmacy are designed to teach students about all aspects of medicine.
4. Students also learn professional ethics, how to develop and manage drugs distribution systems, and concepts of public health.
5. A license to practice pharmacy is required in all States, the District of Columbia, and all U.S. territories. A license to practice pharmacy is required in all States, the District of Columbia, and all U.S. territories.
6. A pharmacy residency consists of two years of general residency and one to two years of specialized residency.

***Exercise 3. Find the definition of abbreviation:***

1. Pharm D	a. American Association of Colleges of Pharmacy
2. B.S. Pharm.	b. Post-Graduate Taug
3. OSPAP	c. Pharmacy College Admission Test
4. AACP	d. Master of Pharmacy
5. PGT	e. Doctor of Pharmacy
6. PCAT	f. Overseas Pharmacists Assessment Programme
7. M Pharm	g. Bachelor of Sciences in Pharmacy

***Exercise 4. What does it take to enter and succeed in pharmacy school?***

- motivation and intelligence

- well-rounded high school and college education
- completion of college prerequisites for pharmacy school entrance
- good academic performance
- preparation for Pharmacy College Admission Test(PCAT)
- timely and successful performance on the PCAT
- evidence of motivation for pharmacy
- evidence of interest in service
- evidence of leadership
- good recommendations
- timely applications to pharmacy schools
- good communication skills

***Exercise 5. Make up a plan of the text!***

## *Unit 4*

### **VOLYN MEDICAL INSTITUTE**

#### *Vocabulary*

physician assistant [fɪ'zɪʃ(ə)nə'sist(ə)nt] - фельдшер  
midwife ['mɪdwaɪf] – акушерка  
medical specialized school – медичне училище  
sanitary assistants – санітарний фельдшер  
nurse [nɜ:s] – медична сестра  
plaster cast – муляж  
treating ['tri:tɪŋ] - лікувальна справа  
obstetrics [əb'stetrɪks] – акушерство  
pharmacy ['fɑ:məsi] - фармація  
scientific research – наукове дослідження  
up-to-date – сучасний  
approach [ə'prəʊtʃ] – підхід  
national revival [nə'vaɪv(ə)l] – національне відродження  
to get success – досягти успіху

#### *Volyn Medical Institute*

After the World War II great attention was paid to protection of health of population of our region. On the 5<sup>th</sup> of September 1944 it was decided to open three-year Physician Assistants' and Midwives' School for preparation of medical specialists of middle level. The Director of school was Myasnikova Zynaida Hrihorivna. During the existence of Medical school there were 16 directors.

On the 12<sup>th</sup> of October 1955 it was decided to reorganize the school into the Medical Specialized School. During these years many qualified medical specialist of middle level were prepared at the educational institution. These are midwives, physician assistants, sanitary assistants, dentists, nurses and laboratory technicians.

In 1996 the school became the base for medical specialized schools of Volyn. The educational-material base became stronger. It got two new buildings. Nurses' complex was created in the Regional hospital. The lecture rooms, laboratories and cabinets are equipped with medical instruments, sets, plaster casts, phantoms and modern computers.

On the 27<sup>th</sup> of August 2002 it was decided to reorganize the Lutsk Base Medical Specialized School into the Lutsk Base Medical College. It became the first college in Volyn. The college conducted the educational activity on the specialties: Treating, Obstetrics, Laboratory Diagnostics, Pharmacy, Nursing, Nursing-Bachelor.

On the 12<sup>th</sup> of February 2020 the Volyn Regional Council took a decision to reorganize the Lutsk Base Medical College into the Volyn Medical Institute. The Institute includes the Lutsk Base Medical Vocational College and Kivertsy Medical



Vocational College as its structural units. It conducts the preparation of medical specialist on the specialties Nursing and Pharmacy granting the educational degrees of Junior Bachelor and Bachelor. All this gives a great chance for the young people to get graded medical education according to the modern standards.

The educational process is based on the principles of professionalism founded on modern scientific research, up-to-date achievements of practical medicine, individual approach to the forming of the personality of future medical specialists, ideas of national revival and proud for our young independent state. The students have a possibility to take part in different clubs and circles.

The graduates of the educational institution become experienced specialist, qualified doctors and famous scientists. They got success in practical medicine, administrative career and research. They hold the leading post as in Volyn so far above its boundaries.

***Exercise 1. Answer the questions:***

1. When was it decided to open three-year Physician Assistants' and Midwives' School?
2. When was it decided to reorganize the school into the Medical Specialized School?

3. When did the school become the base for medical specialized schools of Volyn?
4. When was it decided to reorganize the Lutsk Base Medical Specialized School into the Lutsk Base Medical College?
5. What specialties did the college conduct the educational activity on?
6. When did the Volyn Regional Council take a decision to reorganize the Lutsk Base Medical College into the Volyn Medical Institute?
7. What are the Institute's structural units?
8. What degrees does the VMI grant?
9. What do the graduates of the educational institution become?
10. Do they hold the leading post as in Volyn so far above its boundaries?

***Exercise 2. Find and correct orrect the wrong statement!***

1. After the World War II great attention was paid to protection of health of population of Ukraine.
2. During these years many qualified medical specialist were prepared at the educational institution.
3. The lecture rooms, laboratories and cabinets are equipped with medical instruments, sets, plaster casts, phantoms and modern computers.
4. It became the only college in Volyn.
5. The college conducted the educational activity on the specialties: Treating, Obstetrics, Laboratory

Diagnostics, Pharmacy, Nursing, Nursing-Bachelor.

6. It conducts the preparation of medical specialist on the specialties Nursing granting the educational degrees of Junior Bachelor and Bachelor.
7. All these gives a great chance for the young people to get graded medical education according to the modern standards.
8. The process of studying is based on the principles of professionalism founded on modern scientific research, up-to-date achievements of practical medicine, individual approach to the forming of the personality of future medical specialists.
9. They got success in practical medicine, administrative career and scientific research.
10. They hold the leading post as in Volyn so far above its boundaries.

***Exercise 3. Fill in the words from the list:***

*Nurses' complex, Obstetrics, medical education, sanitary assistants, famous scientists, base, middle level.*

1. On the 5<sup>th</sup> of September 1944 it was decided to open three-year Physician Assistants' and Midwives' School for preparation of medical specialists of ....
2. These are midwives, physician assistants, ....., dentists, nurses and laboratory technicians.
3. The educational-material ..... became stronger.
4. .... was created in the Regional hospital.

5. The college conducted the educational activity on the specialties: Treating, ....., Laboratory Diagnostics, Pharmacy, Nursing, Nursing-Bachelor.

6. All these gives a great chance for the young people to get graded .... according to the modern standards.

7. The graduates of the educational institution become experienced specialist, qualified doctors and .....

***Exercise 4. Make up a plan of the text!***

***Exercise 5.*** Prepare a speech about «**Volyn Medical Institute**», using the useful language from the table “The Structure of Your Speech. Useful Language”. Your speech must contain the most important information of the given topic and be no less than 16 sentences.

<b><i>THE STRUCTURE OF YOUR SPEECH</i></b>	<b><i>USEFUL LANGUAGE</i></b>
<b><i>OPENING</i></b>  <i>Introduce what you are going to tell about</i>	would like to tell you about ..... Today I'd like to give you an overview of.. My topic is / will be very important for you because ... By the end of this talk, you will be

	familiar with ...
<b><i>MAIN BODY</i></b>  <i>Tell the main information</i>	To begin with/First of all, I want to tell you about ..... Next, I have to say that ..... Also, you have to know that .... In my point of view, ..... To my knowledge, ... As far as I know, .... Last but not the least, it is important to know that .....
<b><i>SUMMARY</i></b>  <i>Sum it up</i>	Finally, ... To conclude... In conclusion... I'd like to finish/end by saying... Before I finish I'd finally like to say...



## *Unit 5*

### **MY FUTURE PROFESSION - PHARMACEUTIST**

#### *Vocabulary*

higher educational establishment – вищий навчальний заклад

origin ['ɒrɪdʒɪn] – походження

pharmaceutical education – фармацевтична освіта

pharmacy graduate – випускник-фармацевт

prepared drugs – підготовлені ліки

prescribed medicines – призначені ліки

ready-made drugs – готові ліки

recovery [rɪ'kʌv(ə)rɪ] – відновлення

speciality [ˌspeʃɪ'ælɪtɪ] – спеціальність

to achieve [ə'tʃi:v] – успішно виконувати, досягати

to define [dɪ'faɪn] – визначати

to devote – присвячувати

to dispense – розподіляти

to explain – пояснювати

to identify – ідентифікувати

to permit – дозволяти

to recognize ['rekəɡnaɪz] – дізнаватися, впізнавати

to store [stɔ:] – зберігати

to supply [sə'plaɪ] – постачати

#### *My Future Profession –Pharmacist*

I have chosen pharmacy as my future profession. Pharmacy is the science which studies medicinal substances used for treatment and

prevention diseases. It studies recognizing, identifying, collecting, selecting, preparing, storing, testing, compounding and dispensing all medical substances.

A pharmacist or a provisor has a higher pharmaceutical education. He is permitted by law to prepare drugs at chemist's shops, to check up the qualities of drugs, to dispense and supply them. A pharmacist together with with physician devotes his life to to protecting people's health. Ye os often called "a second doctor".

To be a good specialist one should achieve knowledge of different subjects. Future pharmacists must know chemistry, which includes general, organic, inorganic, analytical chemistry, biochemistry

Toxicological Chemistry deals with toxic substances and

Toxicological Chemistry deals with toxic substances and their action on the organism. Botany is the science of plants, their structure, functions and classification. Pharmacognozy is the science of drugs of animal, vegetable and mineral origin. Of course, my future speciality is closely connected with drugs, that is why future pharmacists must know Pharmacology which is defined as the science of drugs and their action and other sciences.

***Exercise 1. Answer the questions:***



1. What is pharmacy which is your future speciality?
2. What are the duties of a pharmacist?
3. To become a provisor one should achieve knowledge of different subjects, shouldn't he?
4. What are these subjects?
5. What does Toxicological Chemistry deal with?
6. What is Pharmacognozy?

***Exercise 2. Guess the meaning of the following words and phrases:***

pharmacy, speciality, science, medicinal substance, recognizing, identifying, collecting, selecting, preparing, storing, testing, compounding, dispensing, pharmacist, provisor, permitted by law, to prepare drugs, chemist's shop, pharmaceutical plants, to check up, the quality of the drugs, to dispense, to supply, composition of matter, transformation of matter, inorganic substances, biochemical process, animal origin, vegetable origin, mineral origin.

***Exercise 3. Choose a suitable word given in the brackets to fill in each gap.***

To become (an/a) pharmacist one should achieve knowledge of different subjects. (A/Future specialists must know chemistry - the science explaining composition and transformation of matter, different fields of chemistry. Thus, General Chemistry deals with basic principles (and/but) inorganic substances. Organic Chemistry (are/is) the chemistry of carbon compounds. Analytical Chemistry (study/studies) qualitative and quantitative analyses of

inorganic substances. Biochemistry (study/studies) biochemical processes taking place in the human body and in animals. Toxicological Chemistry deals with toxic substances and their action (of/on) the organism. Botany (are/is) the science of plants, their structure, functions and classification. Pharmacognosy (are/is) the science of drugs of animal, vegetable and mineral origin. Of course, my future speciality (are/is) closely connected with drugs, that (are/is) why future pharmacists must know Pharmacology which (are/is) broadly defined as the science of (a/-) drugs and their action and other sciences.

***Exercise 4. Find and correct orrect the wrong statement!***

1. Pharmacy is the science which studies medicinal substances used for treating different diseases.
2. A pharmacist together with a doctor devotes his life to protecting people's health. He is often called 'the second doctor'.
3. To become a dotor one should achieve knowledge of different subjects.
4. Future specialists must know chemistry pharmacology - the science explaining composition and transformation of matter, different fields of chemistry.
5. Of course, my future speciality is closely connected with plants.
6. Pharmacology is defined as the science of drugs and their action and other sciences.

***Exercise 5. Find equivalents:***

1. General Chemistry	a. deals with toxic substances and their action on the organism. Toxicological Chemistry deals with toxic substances and their action on the organism.
2. Analytical Chemistry	b. is the chemistry of carbon compounds.
3. Biochemistry	c. is the science of drugs of animal, vegetable and mineral origin.
4. Organic Chemistry	d. studies biochemical processes taking place in the human body and in animals.
5. Toxicological Chemistry	e. deals with basic principles and inorganic substances.
6. Pharmacognozy	f. is the science of plants, their structure, functions and classification.
7. Botany	g. studies qualitative and quantitative analyses of inorganic substances.

*Unit 6*

**THE SPHERE OF ACTION OF PHARMACIST**

## ***Vocabulary***

sphere [sfɪə] – сфера  
pharmaceutical education [ˌfɑːmə's(j)uːtɪk(ə)l] –  
фармацевтична освіта  
analytical chemist ['kɛmɪst] – хімік-аналітик  
disease – хвороба  
dispensing pharmacist – аптекар  
head of a department – завідувач кафедри;  
начальник відділу  
pharmacy graduate – випускник-фармацевт  
prepared drugs – підготовлені ліки  
prescribed medicines – призначені ліки  
ready-made drugs – готові ліки  
to dispense – розподіляти  
to explain – пояснювати  
to identify – ідентифікувати  
to permit – дозволяти  
to recognize ['rekəɡnaɪz] – дізнаватися, впізнавати  
to store [stɔː] – зберігати  
to supply [sə'plaɪ] – постачати

### **The Sphere of Action of Pharmacist**

The sphere of action of a pharmacist is broad: at a chemist's he may be a manager, or an assistant manager, a head of a department, a dispensing pharmacist, an analytical chemist. A manager is responsible for the work of all departments of a chemist's, it's financial, economic and administrative activity. A dispensing pharmacist takes prescriptions and delivers drugs. An analytical chemist controls the

effectiveness of drugs, their technology and time of storing.

A specialist with higher pharmaceutical education has the right to be the head of a drug storehouse or his assistant. A pharmacist may also work at a chemical analytical laboratory, which controls the quality of prepared drugs at pharmacies as well as ready-made drugs. Very often leading specialists of pharmaceutical factories are graduates of pharmaceutical academies.

At present the sphere of action of a pharmacist is becoming broader: it's worth to say about the specialists who work at numerous biochemical, clinical laboratories at sanatoria, hospitals, polyclinics. Many specialists have private chemist's shops which supply the population with all kinds of medicines, vitamins and things of medical care many of which are imported. Of course one can see pharmacy graduates teaching at higher educational establishments, schools of pharmacy, medical schools, secondary schools, etc.

Wherever a provisor works he must always remember that he works with people. There is no a provisor without love for his profession, a profound respect for people. His aim is to help an ill person to use the prescribed medicines in a better way, to strengthen a person's belief in a sooner recovery.

To sum up, we can say that a pharmacist is a specialist with higher pharmaceutical education who is permitted by law to prepare drugs at chemist's shops, pharmaceutical plants, to check the quality of the

drugs, to dispense and supply them. To become a pharmacist one should achieve knowledge in different subjects (chemistry, pharmacology, pharmacognosy, etc.). A pharmacist must always remember that he works with people.

***Exercise 1. Answer the questions:***

1. Where can pharmaceutical specialist work?
2. What is a manager responsible for? (a dispensing pharmacist, an analytical chemist)
3. Can you describe the work of a chemical analytical laboratory?
4. The sphere of action of a modern specialist is becoming broader, isn't it?
5. Where else can he work?
6. What is the aim of a provisor as a medical worker?
7. What are you going to do after graduating from the academy?

***Exercise 2. Fill in the words from the list:***

*Respect for people, pharmacy graduates, different subjects, a pharmacist, a provisor, chemist's shops.*

1. Many specialists have private ..... which supply the population with all kinds of medicines, vitamins and things of medical care many of which are imported.
2. Of course one can see ..... teaching at higher educational establishments, schools of pharmacy, medical schools, secondary schools, etc.

3. Wherever ..... works he must always remember that he works with people.

4. There is no a provisor without love for his profession, a profound .... .. .

5. To become a pharmacist one should achieve knowledge in ..... .. .

6. .... must always remember that he works with people.

***Exercise 3. Find equivalents:***

1. Leading specialists of pharmaceutical factories	a. is responsible for the work of all departments of a chemist's, it's financial, economic and administrative activity.
2. A pharmacist	b. takes prescriptions and delivers drugs.
3. A specialist with higher pharmaceutical education	c. controls the effectiveness of drugs, their technology and time of storing.
4. A manager	d. has the right to be the head of a drug storehouse or his assistant.
5. An analytical chemist	e. may also work at a chemical analytical laboratory, which controls the quality of prepared drugs



	at pharmacies as well as ready-made drugs.
6. A dispensing pharmacist	f. are graduates of pharmaceutical academies.

***Exercise 4. Read “ODE TO PHARMACISTS”***

People in pain can be cross as a rule.

However, the Pharmacist helps them keep their cool.

Always your friend, he often gives free advice.

Remember his service when you consider the price.

Many years he has trained before he could start

And more importantly, he's got a great big heart.

Certainly his is the most trusted profession,

It's your health that is his obsession.

So the next time you see him, give him a smile,

Treat him nicely, you'll get it back by a mile.

Surely, he'll keep you healthy, at least for a while

***Exercise 5. Answer the questions.***

1. Have you ever dreamed to be a pharmacist? Why?
2. What is the first thing that pops into your head when someone asks you to picture a pharmacist?
3. Is the profession of a pharmacist the most trusted one? Why?
4. Do you agree or disagree with the poet's views? Why?

***Exercise 6. Make a list of 3 main things a pharmacist should do.***

***Exercise 7.*** Make a list of 3 things you will change for the better in the duties of a pharmacist.

***Unit 7***

**LEGAL RESPONSIBILITIES AND WORK  
ETHICS**

***Vocabulary***

duties – обов'язки  
responsibility [rɪˌspɒnsɪ'bɪlɪtɪ] – відповідальність  
to perform [pə'fɔ:m] – виконувати  
prescription [prɪ'skrɪpʃ(ə)n] – рецепт, призначення  
to regard [rɪ'ga:d] – розглядати  
to assure [ə'ʃʊə] – забезпечувати  
to take care of – піклуватися про когось  
to be misused – неправильно вживати,  
використовувати  
side effect – побічна дія  
may cause – може спричинити  
aseptic techniques [eɪ'septɪktek'ni:ks] – асептичні  
методики  
sterile products – стерильна продукція  
precaution [prɪ'kə:ʃ(ə)n] – обережність, застережний  
захід  
to maintain [meɪn'teɪn] – підтримувати, зберігати  
inventory ['ɪnv(ə)nt(ə)rɪ] – інвентар  
follow-up – диспансеризація, диспансерне  
спостереження, наступне спостереження лікаря  
to maintain [meɪn'teɪn] – підтримувати  
to respect – поважати  
patient ['peɪʃ(ə)nt] – пацієнт  
colleague ['kɒli:g] – колега  
to avoid – уникати  
professional – о професійний,  
diagnosis [ˌdaɪəɡ'nəʊsɪs] – діагноз  
covenantal [kl'venənt(ə)l] – договірний,  
двохсторонній

## **Pharmacist's Duties**

Not many people know everyday functions and commitments of a pharmacist. Going to your local pharmacy is one of the most routine trips, but have you ever wondered what people dispense your drugs?

Pharmacists are experts in drug discovery, development, preparation and usage. They are both professional scientists and qualified health care practitioners. Pharmacists work in hospitals, in the community and in the pharmaceutical industry. They promote the safe and effective use of medicines and ensure quality patient care. Often, pharmacists are the first point of information on medicines for the public and other health care professionals, and must be effective communicators.

Pharmacists, or pharmaceutical chemists, are specialized individuals in the field of chemistry. Their responsibilities are to take care of patients' health and — in many cases — their lives.

The knowledge of medications is absolutely vital for a pharmacist. Pharmacists not only dispense medications, they also teach general public about drugs and advise them on safe use. This is probably the single most important responsibility of pharmacists. If they cannot educate healthcare staff and general public about medications, there is a serious risk that drugs will be misused. A pharmacist explains to the patient when to take the medications and how they must be taken.

Pharmacists also have to keep track of the newest drugs on the market and have the ability to

answer questions regarding them as well. Pharmacists never stop learning about medications and pay attention to detail in such an important sphere.

Also pharmacists are responsible for doctor's prescriptions and dispensing the medication ordered. Pharmacists check that the right amount of drugs is dispensed, and that the patient receives correct instructions. Pharmacists also have to dispense medications correctly and accurately. They make sure that the right drug is dispensed, and that it is given to the right patient in the right dosage. They are capable of compounding and mixing drugs for a wide range of applications as prescribed by physicians.

Nowadays pharmacy as a profession continues to grow and expand as well as pharmacist's duties.

### **Legal Responsibilities and Work Ethics**

Responsibility must be taken for the whole process of diagnosis, prescribing and follow-up, including an awareness of limitations to expertise.

A pharmacist maintains professional competence. He has a duty to maintain knowledge and abilities as new medications, devices and technologies become available and as health information advances.

A pharmacist acts with honesty and integrity in professional relationships.

A pharmacist avoids discriminatory practices, behavior or work conditions that impair professional judgment, and actions that compromise dedication to the best interests of patients.

A pharmacist respects the values and abilities of colleagues and other health professionals.

A pharmacist respects respects the covenantal relationship between the patient and pharmacist.

***Exercise 1 . Find words by their definitions.***

1. someone whose job is to prepare medicines	1. precaution
2. a legal or moral obligation	2. medication
3. a piece of paper that a doctor gives you that says what type of medicines you need	3. inventory
4. something done to protect people or things against possible harm or trouble	4. pharmacist
5. a list giving details of all the things in a place	5. prescription
drugs that you take to treat or cure an illness	6. duty

***Exercise 2. Skim through the text and find sentences expressing its main idea.***

***Exercise 3. Answer the questions.***

1. Who is a pharmacist/pharmaceutical chemist?
2. What are the main duties of a pharmacist?
3. What is absolutely vital for a pharmacist?
4. What should pharmacists check?
5. What are pharmacists capable of?

6. Is it necessary for the pharmacists to continue learning about medication? Why?

**Exercise 4.** Prepare a speech «**My Future Profession - Pharmacist**», using the useful language from the table “The Structure of Your Speech. Useful Language”. Your speech must contain the most important information of the given topic and be no less than 16 sentences.

<b><i>THE STRUCTURE OF YOUR SPEECH</i></b>	<b><i>USEFUL LANGUAGE</i></b>
<b><i>OPENING</i></b>  <i>Introduce what you are going to tell about</i>	To start with, I want to tell you about ..... As for me, I want to tell you about ..... Today I'd like to give you an overview of.. My topic is / will be very important for you because ...
<b><i>MAIN BODY</i></b>  <i>Tell the main information</i>	Initially, I want to tell you about ..... Secondly, I have to say that ..... Also, you have to know that .... I think, ..... To my mind, ... In my humble opinion, ...
<b><i>SUMMARY</i></b>  <i>Sum it up</i>	Finally, ... I'd like to finish/end by saying...

	To conclude... In conclusion, .....
--	--

## *Unit 8*

### **PHARMACIST RESUME LETTER TO PHARMACEUTICAL COMPANY**

#### *Vocabulary*



resume [rɪ'zju:m] – резюме  
sample ['sɑ:mp(ə)l] – зразок  
personal information – особиста інформація  
cell [sel] – поштова скринька  
to challenge ['tʃæln(d)ʒ] – потребувати  
position – посада  
summary – резюме, короткий виклад  
to supervise ['su:pəvaɪz] – керувати  
registered pharmacist – дипломований фармацевт  
to fill prescription – заповняти рецепт  
customer – споживач, клієнт  
to fill customer prescription orders – заповняти  
замовлення по рецептах клієнтів  
to handle ['hænd(ə)l] – вести, керувати, сортувати  
inventory responsibility ['inv(ə)nt(ə)rɪ] –  
відповідальність за оснащення  
reference – довідка, зноска, посилання  
available upon request – доступний за запитом  
salutation – вітання, звертання  
body – основний зміст  
closing – заключна частина  
signature ['sɪgnətʃə] – кінець листа  
CV (Curriculum Vitae) [kəˌrɪkjələm'vi:tai] –  
автобіографія

### ***Скорочення в бізнес листуванні:***

BTW (by the way) – до речі

FYI (for your information) – до вашого відома

JIT (just in time) – вчасно

LT (lead time) – час виконання замовлення

AFAIK (as far as I know) – наскільки мені відомо

IOW ( other ) – іншими словами, інакше кажучи

WIP (work in process) – проєкт в стадії розробки

OTL (Over The Line) - понад належне

NRN (no reply needed) – відповідь не потрібно

## **Pharmacist Resume Sample**

### **Personal Information**

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_

Cell: \_\_\_\_\_

E-mail: \_\_\_\_\_

### **Objective**

A challenging and rewarding position as a pharmacist.

### **Summary**

Supervised four registered pharmacists.

Filled prescriptions during busy shifts.

Monitored & reordered supplies.

Provided information to customers.

### **Experience**

Hills Drugs, St. Louis, MO

**Pharmacist, 2011 - Present**

Filled customer prescription orders.

Contacted physicians to confirm prescription details.

Handled customer inquiries.

Managed team of four pharmacists.

Wallgreens Drugs, St. Louis, MO

**Assistant Pharmacist, 2008 - 2010**

Handled all inventory responsibilities.

Contacted physicians to confirm prescriptions.

**Education**

Washington University, St. Louis, MO

M.S., Pharmacology, June 1990

**References**

Available upon request.

**Ділове листування**

Головними особливостями будь-якої ділової переписки є її лаконічність і стислість. Крім того, важливо своєчасно відповідати на отриману кореспонденцію. Цілком природно, що чим активніше ведеться письмове спілкування, тим сильніше одержувач зацікавлений співпрацювати з вами.

Перше, з чого завжди починається діловий лист, це дата. Записується вона в одному зі

стандартних форматів: November 18th / 18th November / 18 або November / November 18.

### **Привітання та звернення (*Salutation*)**

У діловому листі англійською мовою дуже важливо написати правильно ім'я одержувача і його рід. Використовуйте для жінок звернення пані (Ms) і пан (Mr) для чоловіків. У менш офіційній обстановці або після тривалого періоду листування прийнятно називати одержувача за ім'ям.

Після звернення ставиться кома. Можна взагалі не ставити розділові знаки, це стало модним у листах англійською мовою.

***Dear Mr. Smith, Dear Ms. Smith, Dear Sir or Madam, Dear Sirs, To whom it may concern***

### **Основний зміст (*Body*)**

У вступі ділового листа англійською мовою зазвичай використовують дружнє вітання, подяка за виявлену увагу або, іноді, починає формулюватися основна думка послання:

***Thank you for your prompt response (Дякую за швидку відповідь)***

***I am writing to you regarding ... (Я пишу вам про ...)***

***I have decided to write to you ... (Я вирішив написати вам ...)***

Після короткого вступу в першому абзаці формулюється основна думка листа в одному або двох пропозиціях. Використовуйте кілька

коротких абзаців, щоб більш детально описати основні положення Вашого повідомлення.

*With reference to your advertisement could you please send me more detailed description of your goods. I would also like to know about discounts that you provide.*

### **Заклучна частина (Closing)**

У заклучному абзаці ділового листа англійською мовою необхідно зробиринагадування, вказати на терміновість запиту, або подякувати за надану увагу, слід вказати, які дії ви очікуєте від співрозмовника:

*Looking forward to your reply (Чекаємо на Вашу відповідь)*

*If you have any questions do not hesitate to contact me back (Не соромтеся звертатися до мене, якщо у вас є питання.)*

### **Кінець листа (Signature)**

На завершення ділового листа англійською мовою перед ім'ям ставитися завершальна фраза, зазвичай це слово *Sincerely (Щиро), Yours faithfully (З повагою).*

Jane Smith  
5545 Baker street  
London, GB

Trend&Mark  
9034 Groom Street  
Chicago, Illinois  
USA, 90345  
May 15, 2020

Dear Sirs

With reference to your vacancy for pharmacist I am sending you my CV attached to this letter. I have an experience of working as a pharmacist for 2 years in a small company where I had no career prospects. I am the Master of Pharmacy and so I think my education would allow me to make a significant contribution to your company. I would be very grateful if you consider my application.

With respect,

Jane Smith

Від: пані Джейн Смит  
7834 Бейкерстріт,  
Лондон, Велика Британія

Кому: «Тренд&Марк»  
9034 Грумстріт,  
Чікаго, ІлІнойс,  
США 90345  
15травня 2020року

Шановні панове!

Стосовно вашої вакансії фармацевта, я надсилаю вам своє резюме, додане до цього листа. Я маю досвід роботи фармацевтом протягом 2 років у невеликій компанії, де у мене не було кар'єрних перспектив. Я - магістр фармації, і тому я думаю, що моя освіта дозволила б зробити вагомий внесок у вашу компанію. Буду дуже вдячна, якщо ви розглянете мою заяву.

З повагою,

Джейн Сміт

***Exercise 1. Write Your own Pharmacist's Resume.***

***Exercise 2. Write Your own letter to the Pharmaceutical Company.***

## *Unit 9*

### **HISTORY OF PHARMACY**

#### *Vocabulary*

AD (Anno Domini) ['ænəu'dɒmɪni] – наша ера  
ancient ['eɪnʃ(ə)nt] – стародавній  
BC (Before Christ) – до Різдва Христового  
chemical compound ['kɒmpaʊnd] – хімічна сполука  
compilation [kəmpraɪ'leɪʃ(ə)n] – зібрання чогось, збірник  
drugstore ['drʌgstɔ:] – аптека  
eventually [ɪ'ventʃʊəli] – врешті-решт  
for instance – наприклад  
key discovery – ключове відкриття  
medicinal substance – лікарська речовина  
mode of action – режим дії, спосіб дії  
papyrus (pl. papyri) [pə'paɪrəs] – папірус  
pharmaceutical company [ˌfɑ:mə's(j)u:tɪk(ə)l] – фармацевтична компанія  
pharmacy ['fɑ:məsi] – аптека  
preparation [ˌprepə'reɪʃ(ə)n] – препарат, підготовка  
prescription book – книга рецептів  
property – властивість  
representative – представник  
substantially [səb'stænj(ə)li] – істотно  
to distribute [dɪ'strɪbjʊ:t] – поширювати  
to issue a decree [dɪ'kri:] – видати указ  
to set – засновувати, встановлювати  
treatise ['tri:tɪs] – трактат



valuable – цінний

various ['veəriəs] – різноманітний

## **History of Pharmacy**

The history of pharmacy as an independent science is relatively young. The origins of pharmacy dates back to the first third of the nineteenth century. The earliest known compilation of medicinal substances was an Indian Ayurvedic treatise (6th century BC). However, the earliest text as preserved dates to the 3rd or 4th century AD. India has a great history of medicine and patient care.

Ancient Egyptian pharmacological knowledge was recorded in various papyri such as the Ebers Papyrus of 1550 BC, and the Edwin Smith Papyrus of the 16<sup>th</sup> century BC. In Ancient Greece there was a group of experts in medicinal plants. Probably the most important representative was Diocles of Carystus (4th century BC). He is considered to be the source for all Greek pharmacotherapeutic treatises between the time of Theophrastus and Dioscorides. The Latin translation *De Materia Medica* (Concerning medical substances) was used as a basis for many medieval texts, and was built upon by many middle eastern scientists during the Islamic Golden Age.

The advances made in the Middle East in botany and chemistry led medicine in medieval Islam substantially to develop pharmacology. Muhammad ibn Zakarīya Rāzi (Rhazes) (865-915), for instance, acted to promote the medical uses of chemical

compounds. Al-Biruni (973-1050) wrote one of the most valuable Islamic works on pharmacology entitled *Kitab al-Saydalah* (The Book of Drugs), where he gave detailed knowledge of the properties of drugs and wrote about the role of pharmacy and the functions and duties of the pharmacist. Ibn Sina (Avicenna), too, described no less than 700 preparations, their properties, mode of action and their indications. In Europe pharmacy-like shops began to appear during the 12th century. In 1240 emperor Frederic II issued a decree by which the physician's and the apothecary's professions were separated.

The first pharmacy in Europe (still working) was opened in 1241 in Trier, Germany. In Europe there are old pharmacies (opened in 1317) still operating in Dubrovnik, Croatia and one in the Town Hall Square of Tallinn, Estonia dating from at least 1422. The oldest is claimed to be set up in 1221 in the Church of Santa Maria Novella in Florence, Italy, which now houses a perfume museum. The medieval Esteve Pharmacy, located in Llívia, is also now a museum dating back to the 15<sup>th</sup> century, keeping old prescription books and antique drugs.

The earliest drugstores date to the Middle Ages. The first known drugstore was opened by Arabian pharmacists in Baghdad in 754, and many more soon began operating throughout the medieval Islamic world and eventually medieval Europe. By the 19th century, many of the drugstores in Europe and North

America had eventually developed into larger pharmaceutical companies.

Most of today's major pharmaceutical companies were founded in the late 19th and early 20th centuries. Key discoveries of the 1920s and 1930s, such as insulin and penicillin, became mass-manufactured and distributed. Switzerland, Germany and Italy had particularly strong industries, with the UK, US, Belgium and the Netherlands.

***Exercise 1. Answer the questions.***

1. When does the origins of pharmacy date back to?
2. Where was the earliest known compilation of medicinal substances found?
3. Where was a group of experts in medicinal plants found?
4. What was Muhammad ibn Zakarīya Rāzi famous for?
5. When and where was the first pharmacy opened in Europe?
6. When were most of today's major pharmaceutical companies founded?
7. Is the history of pharmacy young or old?
8. Is pharmacy connected to the medicine?
9. What countries have a great history of medicine and patient care?
10. What country was pharmacology developed in?
11. When pharmacy-like shop began to appear?
12. When the earliest drugstores appeared?
13. When did insulin and penicillin become mass-manufactured?

**Exercise 2. Match these words with their English equivalents from the text:**

незалежна наука, медицина, лікарські рослини, хімічні сполуки, фармакотерапевтичні трактати, книга рецептів, рецепт, аптека, фармацевтичні компанії, призначення препаратів, античні ліки.

**Exercise 3. Match these words and phrases with their definitions.**

1) herbal medicine	a) a medicine, a medicament, the act or process of treating with medicine, administration of medicine
2) acupuncture	b) the process of accepting personal responsibility to keep ourselves healthy, and well physically, emotionally, mentally and spiritually
3) self-healing	c) restoring and maintaining health through the stimulation of specific points on the body
4) folk medicine	d) the study and use of medicinal properties of plants
5) medication	e) longstanding remedies passed on and practiced by lay people

**Exercise 4. Write a translation of the following text.**

Pharmacy (from the Greek *φάρμακον* = remedy) is a transitional field between the health sciences and the chemical sciences, as well as the

profession charged with ensuring the safe use of medications. Traditionally, pharmacists have compounded and dispensed medications based on prescriptions from physicians. More recently, pharmacy has come to include other services related to patient care, including clinical practice, medication review, and drug information. Some of these new pharmaceutical roles are now mandated by law in various legislatures. Pharmacists, therefore, are drug therapy experts, and the primary health professionals who optimize medication management to produce positive health outcomes.

## *Unit 10*

### **ON HISTORY OF CHEMISTRY IN UKRAINE**

#### *Vocabulary*

density ['densɪtɪ] – густина

impact – вплив

manufacture [mænʃʊ'fæktʃə] – виробництво

odour ['əʊdə] – запах

qualitative analysis ['kwɒlɪtətɪv ə'nælɪsɪs] – якісний аналіз

raw materials [rɔ:] – сировина

substance ['sʌbst(ə)ns] – речовина

to deliver a lecture – читати лекцію

to determine [dɪ'tɜ:mɪn] – визначити

to influence ['ɪnfluəns] – впливати

to research [rɪ'sɜ:tʃ] – досліджувати

#### **On History of Chemistry in Ukraine**

The investigations in pharmacy at the beginning of the XXth century had a great impact on the development of chemistry in Ukraine. Special courses on this subject were taught at the department of physics and mathematics. Lectures were delivered in Latin.

At that time chemists were mostly interested in analytical chemistry and mineralogy. The science had an applied character and paid much attention to the manufacture of glass, dyes, sugar and to the analyses of raw materials.

The five-volume “General Chemistry for Teachers and Students” was the first textbook on chemistry published in Ukraine. The author of the book F. Gize was the head of the department and the most famous chemist in Ukraine at that time.

Professor Gize initiated delivering lectures on organic and pharmaceutical chemistry in Kharkov University.

In 1856, N. Beketov was appointed the head of the department of chemistry. He was an outstanding scientist and a talented lecturer. Professor Beketov’s works greatly influenced the development of chemistry in Ukraine. The sphere of his scientific interests included general regularities of chemical processes and metallic properties of hydrogen. He was the first to state that a lighter body displaced a heavier one in the reaction and that the specific gravity was the main factor for the direction of any reaction. In 1865 professor Beketov established the series of metal reactivity later proved by G. Lewis and M. Rendal. N. Beketov’s important discovery was aluminothermia, i.e. metal reduction of aluminum. This method was later used in metallurgy.

The development of analytical chemistry in Ukraine is closely connected with the name of professor S. Reformatsky. S. Reformatsky worked at Kyiv University founded in 1835. In 1899 he published “Tables of Qualitative Chemical Analysis”, in which he developed a systematic approach to the analytical experiment. In 1904 professor Reformatsky

defined tasks of qualitative analysis as follows: first find groups of elements, then determine the role of each element in the molecule, and finally, determine individual substances.

S. Reformatsky and Ja. Mikhailenko classified research methods into physical and chemical techniques. The physical methods are based on physical properties of samples: colour, density, odour, etc., while chemical techniques deal with chemical transformations.

Professor S. Reformatsky was an outstanding researcher. The laboratory of general chemistry at Kyiv University is named in his honour.

***Exercise 1. Answer the questions:***

1. What were the chemists of the 19 th century mostly interested in?
2. What was the first textbook on chemistry published in Ukraine?
3. What is professor Gize famous for?
4. What was the sphere of professor Beketov's scientific interests?
5. Who started the development of analytical chemistry in Ukraine?

***Exercise 2. Complete the sentences with the words from the list.***

*Scientific, qualitative, raw materials, properties, density, manufacture.*



1. At that time chemistry had an applied character and paid much attention to the \_\_\_\_\_ of glass, dyes, sugar and to the analyses of \_\_\_\_\_.
2. The sphere of professor Beketov's \_\_\_\_\_ interests included general regularities of chemical processes and metallic \_\_\_\_\_ of hydrogen.
3. In 1904 professor Reformatsky defined tasks of \_\_\_\_\_ analysis.
4. The physical methods are based on physical properties of samples: colour, \_\_\_\_\_, odour, etc.

***Exercise 3. Find the Ukrainian equivalents to the proper names from the text!***

***Exercise 4. Make the Chronological Table "History of Chemistry in Ukraine"!***

## *Unit 11*

### **THE FUTURE OF PHARMACY**

#### *Vocabulary*

care-giver – доглядач

challenge ['tʃælɪn(d)ʒ] – виклик

collaboration [kələbə'reɪʃn] – співпраця

compassion [kəm'pæʃ(ə)n] – співчуття

consistency [kən'sist(ə)nsi] – послідовність

consistent use [kən'sist(ə)nt] – послідовне  
використання

evidence – доказ, свідчення

health profession – професія в сфері охорони  
здоров'я

integral ['ɪntɪgrəl] – невід'ємний

long-term conditions – довгострокові умови

particular [pə'tɪkjʊlə] – конкретний

partnership – партнерство

profound [prə'faʊnd] – глибокий

requirement [rɪ'kwaɪəmənt] – вимога

shift – зміна

to assume [ə'sju:m] – припустити

to improve – покращувати

to shape – формувати

to supply – постачати

## **The Future Of Pharmacy**

Pharmacy, as the third largest health profession, has a central role in assuring the safe and consistent use of medicines and as a provider of wider care. Pharmacists are working in collaboration with many other healthcare organizations to shape the future of pharmacy. In the coming decades, they are expected to become more integral within the health care system. Pharmacists are currently playing a much bigger part in helping patients get the best from their use of medicines. A broader role for pharmacists as care-givers will be central to securing the future of pharmacy.

The role of pharmacy is changing, with a particular focus on the shift from dispensing and supply towards services that help people to get the most from their medicines and stay well. Future models of care delivered through pharmacy depend fundamentally on what is happening, and likely to happen, in the wider national health system. The system faces profound challenges, related to the economic context, and the requirement is to improve the quality of care for patients, and in particular for those living with long-term conditions. Pharmacists are to assume the role of supporting patients with effective medicines use and by serving as care-givers

in the health system, working in close partnership with other health and social care professionals as well as with patients. There is a stronger focus on assuring and improving the quality of care – all health care providers must get better at finding out what patients want and need, and delivering this with safety, consistency and compassion. Pharmacy will have to make its case for delivering new models of care, based on evidence of cost and clinical effectiveness.

***Exercise 1. Answer the questions:***

1. Who do pharmacists work in collaboration with?
2. Where are pharmacists playing a bigger part now?
3. When are they expected to become more integral within the health care system?
4. What is the role of pharmacy?
5. What profound challenges does the system face?
6. What can happen in pharmacy in the future?

***Exercise 2. Translate each of the words into Ukrainian.***

Practitioner, diagnosis, physiology, research, science, development, determine, therapy, terminology, feeling, efficiency, problem, experience, patient, residency.

***Exercise 3. Translate each of the words into English.***

Система охорони здоров'я, клінічна фармація, покращувати, навички догляду за пацієнтами, лікування пацієнта, постачати, узгодження лікування.

***Exercise 4. Read and translate the following information.***

In most jurisdictions (such as the United States), pharmacists are regulated separately from physicians. These jurisdictions also usually specify that only pharmacists may supply scheduled pharmaceuticals to the public, and that pharmacists cannot form business partnerships with physicians or give them "kickback" payments. However, the American Medical Association (AMA) Code of Ethics provides that physicians may dispense drugs within their office practices as long as there is no patient exploitation and patients have the right to a written prescription that can be filled elsewhere. 7 to 10 percent of American physicians' practices reportedly dispense drugs on their own.

## *Unit 12*

### **PHARMACY AS A SCIENCE**

#### *Vocabulary*

dosage forms – дозовані форми

efficacy ['efɪkəsi] – ефективність

health care – охорона здоров'я

medicines, drugs, medicinal products, medications – ліки

mortar ['mɔ:tə] – ступа, ступка

pestle ['pes(ə)l] – товкач, довбня

outcome ['aʊtkʌm] – висновок, наслідок

to be related to – зв'язаний

to dispense – відпускати лікарські засоби, фасувати

to sell (sold, sold) – продавати

#### **Pharmacy as a Science**

Pharmacy is the science and technique of preparing as well as dispensing drugs and medicines. It is also considered as the art of preparing medicinal products, or a place where such substances are sold. The mortar and pestle are one of the internationally recognized symbols to represent the pharmacy profession. Also, the Green Cross is used in Greece, Spain, Italy, Argentina, France, Poland, the United Kingdom and other countries.

Pharmacy is the health profession that links the health sciences with the chemical sciences. The scope of pharmacy practice includes more traditional roles

such as compounding and dispensing medications, and it also includes more modern services related to health care, including clinical services, reviewing medications for safety and efficacy, and providing drug information. Pharmacists, therefore, are the experts on drug therapy and are the primary health professionals who optimize medication use to provide patients with positive health outcomes.

The word pharmacy is derived from its root word pharma which was a term used since the 15th–17th centuries. However, the original Greek roots from "Pharmakos" imply sorcery or even poison. In addition to pharma responsibilities, the pharma offered general medical advice and a range of services that are now performed solely by other specialist practitioners, such as surgery and midwifery. The pharma often operated through a retail shop which, in addition to ingredients for medicines, sold tobacco and patent medicines. The pharmas also used many other herbs not listed. The Greek word Pharmakeia (Greek: φαρμακεία) derives from Greek: φάρμακον (pharmakon), meaning "drug" or "medicine".

In its investigation of herbal and chemical ingredients, the work of the pharma may be regarded as a precursor of the modern sciences of chemistry and pharmacology, prior to the formulation of the scientific method.

### ***Exercise 1. Answer the questions:***

1. What is pharmacy?

2. What are the internationally recognized symbols to represent the pharmacy profession?
3. What does the scope of pharmacy practice include?
4. What is the word pharmacy derived from?

***Exercise 2. Complete the sentences with the words from the list.***

*Pharmacy, science, dosage, forms, drug.*

1. Pharmacy is the \_\_\_\_\_ and technique of preparing as well as dispensing drugs and medicines.
2. Pharmacists are the experts on \_\_\_\_\_ therapy.
3. The word \_\_\_\_\_ is derived from its root word pharma.
4. Pharmaceutics concerns on how to convert medication and drugs to suitable drug.

***Exercise 3. Guess the meaning of the following words and phrases:***

science, technique of preparing, medicinal products, mortar, pestle, internationally recognized symbol, Green Cross, health profession, health sciences, chemical sciences, the scope of pharmacy practice, dispensing medications, modern services, drug information, original Greek roots, clinical services, safety and efficacy, drug therapy, to optimize medication use.

***Exercise 4. Find and correct the wrong statements: Find and correct the wrong statements:***



1. It is also considered as the art of preparing medicinal products, or a place where such substances are stored.
2. Also, the Green Cross is used in Greece, Spain, Italy, Argentina, France, Poland, the United Kingdom and other countries.
3. Pharmacists are the experts on drug therapy and are the primary health professionals.
4. The word pharmacy is derived from its root word pharma which was a term used since the 15th–17th centuries.
5. The pharmas also used many other herbs and animals not listed.
6. The work of the pharma may be regarded as a precursor of the modern sciences of chemistry and pharmacology, prior to the formulation of the scientific method.

## *Unit 13*

### **STRUCTURE OF PHARMACY AS A SCIENCE**

#### *Vocabulary*

to divide – розділити

to include – включати, містити

posology [pə'sɒlədʒi] – наука про дозування ліків

to consider – розглядати, вважати

recognition [rɛkəg'nɪʃ(ə)n] - розпізнання

purify ['pjʊərɪfaɪ] - чистота

stability [stə'bɪlɪti] – стійкість, сталість

compound ['kɒmpaʊnd] - складова, елемент

to dispense [dis'pense] - готувати

to powder [paʊdə] - товкти, перетворювати на порошок

to dissolve [dɪ'zɒlv] – розчиняти, розводити

amount [ə'maʊnt] – величина, кількість, сума

to modify ['mɒdɪfaɪ] – змінювати, пом'ягшувати

response [rɪ'spɒns] – реакція, відповідь

stimuli ['stimuli] - подразник

to be focused on ['fəʊkəst] – бути спрямованим на

excretion [ɪk'skri:ʃ(ə)n] - секреція, виділення

#### **Structure of Pharmacy as a Science**

The field of pharmacy can generally be divided into three main disciplines:

Pharmaceutics that concerns on how to convert medication and drugs to suitable drug dosage forms;

Pharmaceutical	Sciences	including
pharmaceutical	and medicinal	chemistry,

pharmacognosy, pharmacy technology, pharmacy management and economics and pharmacology;

Pharmacy practice that concerns dispensing medication correctly. In the late 20th century, this field has developed into hospital pharmacy and clinical pharmacy. All of these fields are concentrated on optimizing patient care.

The subject of pharmacology may be divided into a number of distinct sciences such as pharmacognosy, pharmacy, posology, pharmacodynamics, pharmacotherapeutics and toxicology.

Pharmacognosy is a descriptive science and concerned with the recognition, quality, purity, by macroscopic and microscopic means, and identification of plants and animal drugs.

Pharmacy deals with the preparation, stability, preservation and storage of drugs. From these drugs pharmacist prepares compounds and dispenses medicines. Most drugs are prepared by pharmaceutical manufactures and are distributed to pharmacy or hospital in such suitable dosage forms as tablets, capsules, liquid preparations, or sterile solutions for injections. Pharmacist now has no less a responsible role in properly dispensing the preparations in finished forms than when they powdered, dissolved, mixed, and otherwise compounded prescriptions. He still performs these functions for many of these orders.

Posology is concerned with the dosage or amount of a drug given in the treatment of disease. There is a minimum, maximum, usual or therapeutic,

and toxic dose for each drug. The most important is the usual dose which is the oral dose for an adult weighting 70 kg. There are a number of conditions that modify the dose of a drug.

Pharmacodynamics is concerned with the response of living tissues to chemical stimuli, that is the action of drugs on the living organism in the absence of disease. It is one of the newest biological sciences and is closely associated with physiology, biochemistry, pathology, and microbiology. It is unique in that its interest is focused on drugs. It is a study of the absorption, fate, excretion, and action of a foreign substance in the body.

***Exercise 1. Answer the questions:***

1. How can the field of pharmacy be divided?
2. What is pharmaceutics?
3. What pharmaceutical sciences can you name?
4. What is pharmaceutical practice?

***Exercise 2. Translate into Ukrainian:***

The field of pharmacy, to convert medication and drugs to suitable drug dosage forms to convert medication and drugs to suitable drug dosage forms, pharmaceutical chemistry, medicinal chemistry, pharmacognosy, pharmacy technology, pharmacy management and economics and pharmacology, dispensing medication correctly, pharmaceutical manufactures, tablets, capsules, liquid preparations, sterile solutions for injections, powdered, dissolved, mixed powdered, dissolved, mixed.

**Exercise 3. Find and correct the wrong statements:**

1. The field of pharmacy can generally be divided into some main disciplines.
2. In the late 19th century, this field has developed into hospital pharmacy and clinical pharmacy.
3. All of these fields are concentrated on optimizing patient care.
4. From these drugs pharmacist prepares compounds and medicines.
5. Pharmacist now has no less a responsible role in properly dispensing the preparations in finished forms than when they powdered, dissolved, mixed, and otherwise compounded prescriptions.
6. There is a minimum, maximum, usual or therapeutic, and toxic dose for each age.
7. The most important is the usual dose which is the oral dose for an adult weighting 80 kg.
8. There are a number of conditions that modify the dose of a drug.
9. It is unique in that its interest is focused on chemistry.
10. It is a study of the absorption, fate, excretion, and action of a foreign substance in the body.

**Exercise 4. Find equivalents:**

1. Pharmacodynamics	a) is a descriptive science and concerned with the recognition, quality, purity,
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	by macroscopic and microscopic means.
2. Pharmacy	b) deals with the preparation, stability, preservation and storage of drugs.
3. Pharmacy	c) Posology is concerned with the dosage or amount of a drug given in the treatment of disease.
4. Pharmaceutics	d) is concerned with the response of living tissues to chemical stimuli, that is the action of drugs on the living organism in the absence of disease.
5. Pharmacognosy	e) practice that concerns dispensing medication correctly.
6. Pharmacodynamics	f) that concerns on how to convert medication and drugs to suitable drug dosage forms

**MODULE II**  
**AT THE CHEMIST'S**

## *Unit 14*

### **PHARMACY**

#### *Vocabulary*

chemist's department – відділ готових ліків

cold – застуда

cough [kɒf] – кашель

flu – грип

headache – головний біль

immediate [ɪ'mi:diət] – миттєвий

medication – лікарський засіб

prescription department – рецептурний відділ

to affect [ə'fekt] – впливати

to compound [kəm'paʊnd] – виготовляти, складати

to dispense – фасувати, відпускати

to store [stɔ:] – зберігати

assistant room – асистентська

antihypertensive [antihaɪpə'tensɪv] – гіпотензивний засіб

antihypotensive [antihaɪpəʊ'tensɪv] – гіпертензивний засіб

#### **Pharmacy**

The production and sale of drugs is a big business in many countries. Drugs affect and alter health. So they play a prominent role in society, as well as drug industry as a whole. This role includes



discovery of new drugs, their development into useful therapeutic tools and production and distribution of existing medicines.

Nowadays most drugs are prepared by pharmaceutical manufacturers and are distributed to the chemist's shops or hospitals in suitable dosage forms.

A chemist's shop is a specialized shop where drugs are compounded, dispensed, stored and sold. An average chemist's shop has a hall for visitors, departments for selling drugs and proper working rooms. There are usually two departments in a large chemist's shop. At the chemist's department one can have a medicine immediately, other drugs have to be ordered at the prescription department.

A chemist's shop also has an assistant room, a room for washing, drying and sterilization, an analytical laboratory, a room for dispensing medicines, a room for storing. There are some requirements for the storage of drugs. The drugs for immediate use should be kept in refrigerators. Some drugs should be stored in cool place and protected from light.

At the chemist's medicines are distributed according to the therapeutic effect: drugs for cough,

cardiac medicines, drugs for headache, flu and cold, antihypertensive and antihypotensive remedies.

***Exercise 1. Answer the questions.***

1. Why is drug industry a big business in many countries?
2. What kind of role do drugs play in society?
3. Where are most drugs produced nowadays?
4. How are they distributed?
5. What is a chemist's shop?
6. What departments and rooms does an average chemist's shop include?
7. What drugs are sold there?
8. What dosage forms do you know?
9. Where are drugs kept at the chemist's shops?
10. What information can pharmacist provide people with?

***Exercise 2. Find the synonym in other column.***

1) drug	a) to produce
2) big	b) consumers
3) to distribute	c) suitable
4) to include	d) at once
5) to affect	e) to write out
6) to prepare	f) as well as
7) to manufacture	g) to demand
8) visitors	h) to apply
9) proper	i) spot
10) immediately	g) medicine

11) to prescribe	k) large
12) also	l) to spread
13) to require	m) to consist of
14) to use	n) to have impact on
15) place	o) to get ready
16) to supply	p) to run
17) source	q) origin
18) to be in charge of	r) to provide

***Exercise 3.*** Find and correct the wrong statement:

1. The production of drugs is a big business in many countries.
2. A chemist's shop is a specialized shop where drugs are compounded, dispensed, stored and sold.
3. There are usually several departments in a large chemist's shop.
4. At the chemist's department drugs have to be ordered at the prescription department.
5. At the chemist's medicines are distributed according to the action to the body: drugs for cough, cardiac medicines, drugs for headache, flu and cold.

***Exercise 4.*** Make up a plan of the text.

## *Unit 15*

### **AT THE CHEMIST'S**

#### *Vocabulary*

dispensing pharmacist – рецептар

manager – завідуючий аптеки

replenishing [rɪ'plenɪʃɪŋ] – поповнення

therapeutic tools [ˌθerə'pjʊ:tɪk] – терапевтичні засоби

chemist's stall – аптечний кіоск

chemist's = chemist's department

wholesale [ˈhəʊlseɪl] – гурт, гуртовий

stock-in-trade – медтехніка

cito [ˈtʃɪtə] – швидко

over-the-counter – безрецептний

to supply [sə'plaɪ] – постачати

#### **At the Chemist's**

A chemist's shop is a medical institution in which you can have all the prescriptions made up and buy all the necessary things when you are ill. There are three types of chemist's shops in our country at present: municipal, hospital, private. All of them are licensed. You can also buy some medicines at chemist's stalls. The chemist's shop consists of several departments: wholesale, stock-in-trade and prescription department.

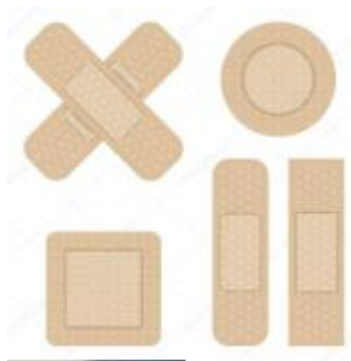
The prescription department provides medicines only by the doctor's prescriptions. Ready-made medicines such as tablets, drops as well as injection solutions are usually given out immediately at a patient's request. If a patient needs some ointment, a tincture or powders he can order them and will get the prepared medicines in some hours. Sometimes medicines are prepared in the presence of a patient having a prescription with the word "cito".

Because of his knowledge the pharmacist should provide information required for the safe and effective use of both prescription and over-the-counter medications when supplying them to patients. The pharmacist serves as an information source of all aspects of drugs to his colleagues in the medical, dental and nursing professions.

The personnel of a chemist's shop consists of a manager, who is the head of it, a dispensing pharmacist, who takes prescription and delivers drugs, a chemist controlling the prescription, a chemist – analyst controlling the effectiveness of the drugs prepared. There is also a pharmacist who is in charge of the supply of the necessary medications and its replenishing.

**Exercise 1. Match the pictures with the words in the list.**

*Medicines, ointment, bandages, hot water bottle, cotton wool, mustard plaster, tincture.*





***Exercise 2. Guess the meaning of the words:***

Medicines, ointment, bandages, hot water bottle, cotton wool, mustard plaster, tincture, dispensing pharmacist, manager, replenishing, therapeutic tools, chemist's stall, wholesale, stock-in-trade, cito, ver-the-counter, to supply, chemist's department.

***Exercise 3. Find and correct the wrong statement:***

1. There are three types of chemist's shops in our country at present: municipal, hospital, private.
2. You can also buy some medicines at chemist's stalls.
3. The prescription department provides medicines only by the doctor's prescriptions.
4. Sometimes medicines are prepared in the presence of a patient having a prescription with the word "cito".

5. The pharmacist serves as an information source of all aspects of drugs to his colleagues in the medical, dental and nursing professions.

6. There is also a pharmacist who is in charge of the supply of the necessary medications and its replenishing.

***Exercise 4. Find equivalents:***

1. dispensing pharmacist	a) гуртова торгівля
2. manager	b) поповнення
3. replenishing	c) аптечний кіоск
4. therapeutic tools	d) швидко
5. chemist's stall	e) безрецептний
6. wholesale	f) терапевтичні засоби
7. stock-in-trade	g) рецептар
8. cito	h) медтехніка
9. over-the-counter	i) постачати
10. to supply	g) завідуючий аптеки



## Unit 16

### BYING MEDICINES AT THE CHEMIST'S

#### Vocabulary

customer – споживач, клієнт

to feel dizzy – ти головокружіння

decongestant [dəken'dʒestʃ(ə)n] – проинабрюковий засіб

drowsiness ['draʊzɪnəs] – сонливість, в'ялість

band-aides ['bændeidz] – перев'язувальні матеріали

sun screen – сонцезахисні засоби

aisle [aɪl] – коридор, прохід

generic drug [dʒɪ'nerɪk] – офіційна (фармакопейна) назва

#### Bying Medicines at the Chemist's

**Pharmacist:** Good morning, may I help you?

**Customer:** Could you please fill this prescription for me?

**Pharmacist:** Have you taken this medicine before?

**Customer:** No I haven't.

**Pharmacist:** You have to take one pill three times a day for seven days.

**Customer:** Are there any side effects?

**Pharmacist:** Yes. You may feel dizzy.

**Customer:** What about precautions?

**Pharmacist:** Don't drive when you take this medicine.

**Customer:** When will the prescription be ready?

**Pharmacist:** It'll be ready in a few minutes.

**Customer:** I've also had a runny nose for a couple of days, can you recommend something?

**Pharmacist:** This decongestant is very effective, but be careful using it. It causes drowsiness and you shouldn't drink any alcohol when taking it.

**Customer:** OK, I'll try it. I also need some band-aides and sun screen. Where are those?

**Pharmacist:** The band-aides are on aisle 3, on the left and the sun screen is on aisle 2, on the top shelf.

**Customer:** Thanks.

**Pharmacist:** Will that be all?

**Customer:** That should do it.

**Pharmacist:** That comes to \$34.56.

**Customer:** That's expensive! Why so much?

**Pharmacist:** The prescription medication is expensive. It cost \$25.99. I may be able to get you a generic drug for about half that price, but I would have to consult your doctor first.

**Customer:** No, that's OK. Don't bother.

**Pharmacist:** Here's your change. Have a nice day.

***Exercise 1. Find Ukrainian equivalents for some useful expressions from the dialogue.***

1. May I help you?

2. I'd like to have this prescription filled.

3. What about precautions?
4. Can you recommend something?
5. Will that be all?
6. That's expensive!
7. To get smth for about half the price
8. Don't bother.
9. Here's your change.

***Exercise 2. Match the words on the left with the correct meaning on the right.***

1) drowsy	a) feeling like you have to vomit
2) nauseated	b) a kind of medicine used on skin
3) precaution	c) be more than
4) dizzy	d) e) suggested
5) 7) exceed	f) sleepy
6) recommended	g) amount of medicine to take
7) dosage	h) feeling like everything is turning
8) ointment	i) taking care so something bad doesn't happen

***Exercise 3. Play the dialogue with a partner.***

***Exercise 4. Prepare a speech about «Chemist's Shop», using the useful language from the table "The Structure of Your Speech. Useful Language".***

**Your speech must contain the most important information of the given topic and be no less than 16 sentences.**

<b><i>THE STRUCTURE OF YOUR SPEECH</i></b>	<b><i>USEFUL LANGUAGE</i></b>
<b><i>OPENING</i></b>  <i>Introduce what you are going to tell about</i>	<p>To begin with, I want to tell you about .....</p> <p>First of all, I want to tell you about...</p> <p>I would like to tell you about .....</p> <p>My topic is / will be very important for you because ...</p> <p>Today I'd like to give you an overview of....</p>
<b><i>MAIN BODY</i></b>  <i>Tell the main information</i>	<p>Initially, I want to tell you about ...</p> <p>Secondly, I have to say that .....</p> <p>Also, you have to know that ....</p> <p>I think, .....</p> <p>To my mind, ...</p> <p>In my opinion, ...</p> <p>I believe, it is important to know that .....</p>
<b><i>SUMMARY</i></b>  <i>Sum it up</i>	<p>Finally, ...</p> <p>I'd like to finish/end by saying...</p> <p>To conclude...</p> <p>Before I finish I'd finally like to say...</p>

## Unit 17

### PRESCRIPTION

#### Vocabulary

abbreviations [əˌbriːviˈeɪʃənz] – аббревіатура

frequency [ˈfriːkw(ə)nsɪ] – частота

to alleviate [əˈliːviət] – полегшувати

to prescribe [priˈskraɪb] – прописувати

treatment [ˈtriːtm(ə)nt] – лікування

patient identifier [aɪˈdentɪfaɪə] – ідентифікатор пацієнта

strength [streŋθ] – сила дії, концентрація

route [ruːt] – спосіб введення

sublingual [sʌbˈlɪŋgw(ə)l] – сублінгвальний, під'язичний

refills – поповнення запасів, замовлення

#### Prescription

A prescription is written by a doctor to give patients medicine needed to alleviate symptoms or stabilize a medical condition that might be chronic in nature. The prescription is written by a physician in order to tell the pharmacist which medication is required. These often include a number of prescription abbreviations.

Prescriptions are used for medications that a doctor feels is necessary for treatment. These are legal

documents that are required in order to receive medicine which is prepared by the pharmacist in a pharmacy. Recommendations, on the other hand, are courses of action that a doctor feels will be helpful for the patient. These could include simple daily tasks such as taking a walk or eating more fruits and vegetables.

Prescriptions include:

**Patient identifier:** First and last name of the patient, as well as the date of birth (DOB).

**Medication (also named "drug"):** The medicine that is prescribed.

**Strength:** How strong the medication prescribed is (50 mg, 100 mg, etc.).

**Amount:** How often the patient should take the medicine.

**How much:** Number of pills, tablets, etc. provided.

**Frequency:** How often the patient should take the medicine.

**Route:** How the patient should take the medicine (by mouth, topical, sublingual, etc.).

**Refills:** How often the prescription should be renewed.

**Signature:** Signature of the physician writing the prescription.

**Date:** The day on which the prescription was written.

***Exercise 1. Answer the questions:***

1. What is a prescription?
2. Why does a physician write a prescription?
3. What is the difference between a prescription and recommendations?
4. What information does a prescription include?

***Exercise 2. Match the words from column A with synonyms from column B.***

<b>Column A</b>	<b>Column B</b>
1) amount	a) medicine
2) chronic	b) illness, sickness, disease
3) drug	c) information that identifies a patient
4) easier said than done	d) how often something is done
5) frequency	e) how much
6) medical condition	f) person who has a license to prepare medications for patients
7) medication	g) recurring, happening again and again
8) patient identifier	h) doctor
9) pharmacist	i) idiomatic term used to refer to medicine
10) pharmacy	j) not easy to do
11) physician	k) to sleep enough to feel rested

12) prescription	l) licensed store which sells medicine that requires a prescription
13) to refill	m) to be relaxed
14) route	n) placed on the skin
15) strength	o) to take medicine by mouth
16) sublingual	p) to provide medicine again based on a prescription
17) to alleviate	q) order from a doctor for medicine
18) to get a good night's sleep	r) how medicine should be taken
19) topical	s) how strong the medicine is
20) to stabilize	t) under the tongue
21) to stay calm	u) to make easier, to relieve
22) to take a pill	v) to make regular

***Exercise 3. Guess the meaning of the words:***

Abbreviations, frequency, to alleviate, to prescribe treatment, patient identifier, strength, route, sublingual, refills, topical, to stabilize, to take a pill.

***Exercise 4. Correct the wrong statement.***

1. The prescription is written by a physician in order to tell the pharmacist which medication is ordered.



2. These often include some of prescription abbreviations.
3. Prescriptions are used for medications that a doctor feels is necessary for treatment.
4. These are legal documents that are required in order to receive medicine which is prepared by the pharmacist in a pharmacy.
5. These could include simple daily eating more fruits and vegetables.

***Exercise 5. Put the structural units of a prescription in a right order:***

*Strength, date, signature, route, patient identifier, amount, how much, frequency, medication.*

## U n i t 18

### GIVING A PRESCRIPTION

#### Vocabulary

to give a prescription – виписувати рецепт

night's sleep – нічний сон

prescription – призначення

to stay home from work – не йти на роботу

to stay calm – бути спокійним

#### Giving a Prescription

**Patient:** ... what about the problems I've been having sleeping?

**Doctor:** I'm going to give you a prescription for some medicine to help you get a better night's sleep.

**Patient:** Thank you, doctor.

**Doctor:** Here, you can get this prescription at any pharmacy.

**Patient:** How often should I take the medicine?

**Doctor:** Just take one pill about 30 minutes before you go to bed.

**Patient:** How long should I take them?

**Doctor:** The prescription is for thirty days. If you're not sleeping well after thirty days, I'd like you to come back in.

**Patient:** Is there anything else I can do to help me sleep at night?

**Doctor:** Don't worry so much about things at work. I know, I know... easier said than done.

**Patient:** Should I stay home from work?

**Doctor:** No, I don't think that's necessary. Just remember to stay calm.

***Exercise 1. Answer the questions:***

1. What is the dialogue about?
2. What problems does a patient have?
3. What is the usage of medicine?
4. How long should the patient take medicine?
5. What does the doctor advise?

***Exercise 2. Guess the meaning of the words:***

to give a prescription, night's sleep, prescription, stay home from work, to stay calm, to take one pill about 30 minutes before going to bed, to help somebody sleep at night, easier said than done.

***Exercise 3. Correct the wrong statement.***

1. I'm going to give you a prescription for pills to help you get a better night's sleep.
2. Here, you can get this prescription at any pharmacy.
3. Just take one pill about 45 minutes before you go to bed.
4. The prescription is for twenty days.

5. Don't worry so much about things at work.
6. Just remember to stay home.

***Exercise 4. Act the dialogue with a partner!***

## **U n i t 19**

### **ENGLISH PRESCRIPTION**

#### **Vocabulary**

compound ['kɒmpaʊnd] – сполука

curative ['kjʊərətɪv] – цілющий

to dispense – готувати, розфасовувати (ліки)

generic name [dʒɪ'nerɪk] – офіційна (фармакопейна)  
назва

to identify – встановлювати, розпізнавати,  
ідентифікувати

trade name – торгова назва

unique [ju:'ni:k] – унікальний

#### **English Prescription**

The language of prescription was unique in Great Britain some half a century ago when all the names of drugs were Latinized. It was possible because the physician used only dosed drugs. Today all prescriptions are written in English. The only Latin which is used is few traditional abbreviations in the direction to the pharmacist and on the label.

A more serious problem is the naming of drugs. In the old days, drugs had only one official name and drug companies did not have many trade names. At present, each drug has at least three names. They are the chemical name, the so-called generic name, and

trade name. The chemical name is difficult to use and remember except for the simplest drugs because of its length and complexity.

The trade or brand name is the private property of the drug company. Most drugs have several trade names because each company producing the drug gives it a different name. It is common practice to capitalize the first letter of a trade name.

The generic or official name is shorter than the chemical name. It is public property and any drug manufacturer may use it. There is only one generic name for each drug. The majority of physicians use trade names in prescriptions. Generic name should be used as the language of prescription. It is known to the specialists of medicine and pharmacy and it is not known to general public. For example, ampicillin is the generic name of a well-known antibiotic; alpha-aminobenzyl P- its chemical name; Omnipen, Penbritin, Polycillin, etc. are its trade names.

Dosage. It goes without saying that a prescription cannot be written without a very good knowledge of the dose effects of drugs. Each drug has its own dose specification dependent on pharmacological properties, metabolism of the drug. It should have the following information:

1. Name and address of the physician and his telephone number. The title M.D. (Medical Doctor) should follow the physician's name to indicate that he or she is a physician.
2. Usually at the top - patient's name, address, age and the date.
3. Symbol Rx. This is about the same as "Dear Sir" on top of a letter. It comes from Latin and means a command for a patient "you take".
4. The body of the prescription contains the name of the drug and the dose.
5. Under the body of the prescription should be written the directions to the pharmacist. It is called subscription. In modern prescriptions it consists only of the form of the medicine (powder, tablet, capsules, etc.) and the number of units.
6. The directions to the patient as to how he should take the medicine. It is called the label or "signature".

***Exercise 1. Answer the questions:***

1. When was the language of prescription unique in Great Britain?
2. Where is Latin used in prescriptions today?
3. What names does each drug have at present?
4. What is a brand name?
5. What is a generic name?
6. What is the structure of the English prescription?

***Exercise 2. Complete the sentences with the necessary words from the text.***

1. The trade name is usually known to the specialists of medicine and isn't known to \_\_\_\_\_. 2. Generic names are known to the specialists of \_\_\_\_\_ and \_\_\_\_\_. 3. The body of the prescription contains \_\_\_\_\_. 4. \_\_\_\_\_ drugs had only one official name. 5. Chemical names are difficult \_\_\_\_\_, hard \_\_\_\_\_, and difficult \_\_\_\_\_. 6. A prescription cannot be written without a very \_\_\_\_\_ knowledge of the dose effect of the drug.

***Exercise 3. Correct the wrong statement.***

1. It was possible because the physician used only dosed drugs.
2. At present, each drug has at least three names.
3. They are the chemical name, the so-called generic name, and trade name.
4. The trade or brand name is the private property of the drug company.
5. It is common practice to capitalize the first letter of a trade name.
6. The generic or official name is shorter than the chemical name.
7. There is only one generic name for each drug.



8. The majority of physicians use trade names in prescriptions.

***Exercise 4.* Write the list of information which should be included into English prescription!**

## Unit 20

### LATIN CODES AND THEIR EQUIVALENTS

#### Vocabulary

code [kəʊd] – маркування, код, шифр, індекс

a.c. - before meals – перед їжею

h – hour – година

i – one or one time – одноразово

ne.rep. (n.r.) – means to the pharmacist that the prescription is not to be repeated – означає для фармацевта, що рецепт не можна повторювати

p.r.n. – as needed – за потреби

Sig. – signature – сигнатура

i.i.stat. – two tablets at once – дві таблетки відразу

i.q. 4h. – one capsule every 4 hours – 1 капсула кожні 4 години

in – mix – змішати

tabs – tablets - таблетки

t.i.d. - three times a day – тричі на день

i.d. - once a day – раз на день

#### ***Exercise 1. Give the meaning of Latin codes:***

i.i.stat., a.c., Sig., ne.rep. (n.r.), i, i.d., h, tabs, p.r.n., in, t.i.d., i.q. 4h.

**Exercise 2. Match the words from column A with equivalents from column B.**

<b>A</b>	<b>B</b>
<b>1. a.c.</b>	<b>a. as needed</b>
<b>2. h</b>	<b>b. two tablets at once</b>
<b>3. i</b>	<b>c. mix</b>
<b>4. ne.rep. (n.r.)</b>	<b>d. tablets</b>
<b>5. p.r.n.</b>	<b>e. before meals</b>
<b>6. Sig.</b>	<b>f. once a day</b>
<b>7. i.i.stat.</b>	<b>g. one or one time</b>
<b>8. i.q. 4h.</b>	<b>h. before meals</b>
<b>9. in</b>	<b>i. hour</b>
<b>10. tabs</b>	<b>j. three times a day</b>
<b>11. t.i.d.</b>	<b>k. means to the pharmacist that the prescription is not to be repeated</b>
<b>12. i.d.</b>	<b>l. one capsule every 4 hours</b>
<b>13. a.c.</b>	<b>m. signature</b>

**Exercise 3.** Read the examples of the following English prescriptions, translate the codes.

### **Prescription I**

Tel. ER5- 600 Reg. No. 198

Rupert Black, M.D. 230 Broad Street Philadelphia 1,  
Philadelphia1 Name: Mrs. Anna White, age 45  
Address: 619 Locust Street, Philadelphia, Philadelphia

Tabs, Thyroid USP 30 ng<sup>2</sup> Dispense: 60 Sig. Tabs.i.t.  
i.d.a.c.

Rupert Black, M.D.

ne.rep.

## **Prescription II**

Tel. ER5- 600

Rupert Black, M.D. 230 Broad Street Philadelphia 1,  
Philadelphia Name: Mrs. John W. Keyes, age  
30 Address: 525 East, 68th St., New York, New York  
10021 Rx Theophylline 3 gm  
Ephedrine Sulfate 0.6 gm  
Phenobarbital 0.6 gm M. Divide into 30 capsules

Sig. Cap. i. of 4 h. p.r.n.

Rupert Black, M.D.

ne.rep.

***Exercise 4. Find a prescription in the Internet  
and translate it.***

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Гальчун Наталія Петрівна

# ENGLISH FOR PHARMACISTS

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